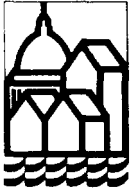


Department of Transportation  
Traffic/Parking/Transit

City of  
Madison



Warren O. Somerfeld, Director

February 1, 1993

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

TO: Ms. Donna Searcy, Secretary  
Federal Communications Commission  
1919 M Street NW, Suite 222  
Washington DC 20554

FROM: Alan R. Schwoegler *ARS.*  
Communications Operations Supervisor

SUBJECT: **FCC PR Docket 92-235**

I wish to comment at this time on the proposed **FCC PR Docket 92-235** and its impact on the City of Madison, WI and Dane Co, WI.

Our Background: The City of Madison presently has an inventory of over 1050 mobile units on 15 UHF Public Safety channels along with 52 base stations and 95 system satellite receivers. This is an estimated \$750,000 worth of main system RF equipment and \$2 million worth of mobile equipment.

Dane County, WI has an estimated \$400,000 in base equipment and \$1 million in mobile equipment.

All equipment is on a rotating 10 - 12 year replacement cycle and has an average age of five years at this time. Replacement cycle allows the Government agencies to budget a flat amount yearly for radio replacement and upgrade in order to minimize budget impact. I am fearful of the FCC proposals effect on the budgets of Dane County and City of Madison. Other parts of the docket I approve of.

**Selected Comments on Docket:**

Channels and Transition Period: The need to increase available spectrum is obvious and necessary. The timetable for narrow banding channels, however, is not realistic. If narrow band I.F.'s need to be added to existing City radios in order to accommodate the 1996 band width reduction changes at a possible \$300 - \$400 cost per receiver, then the City faces an immediate \$255,000 - \$340,000 cost

DOT Field Operations  
Traffic Engineering/Parking  
1120 Sayle Street  
Madison, Wisconsin 53715  
608 266 4767

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that has not been part of long range planning. Such costs should not be immediately forced on the taxpayer. Systems should be narrow banded over time, as replacement is scheduled. The channel splitting is a good idea but needs to be phased in by two steps as proposed and also stretched over longer time periods. Existing public safety users should have exclusive rights to existing channels and first claim to at least one of the additional two channels created within existing band width to be used exclusively as public safety.

Exclusive Use - For public safety such as police, fire and other, exclusive use is a necessity.

Loading Criteria - Agree, all bands.

Private Land Mobile Radio Services - Agree with three categories: Public Safety, Non-Commercial, Specialized Mobile. APCO should be exclusive coordinator for PL, PS, PP, PF and PH.

Transmitter Power/Antenna Height - ERP is important in urban areas in Police and Fire services because of the need for signal penetration to buildings. Higher ERP's for urban areas should be allowed as long as antenna height is kept low enough. In Madison, we have problems such as a hilly terrain in the outskirts, central city buildings where penetration is needed for police and fire plus a large land area of approximately 65 square miles to cover.

Dane County has a hilly terrain where antenna height is more important than ERP. The minimum antenna height needed to cover the County from any available area of high land is 400' above average terrain, using present single site coverage. There are many counties in Wisconsin which are more hilly and even more dependent on tower heights. Multiple transmitter sites are not always possible due to budget or land availability.

Consideration must be given when looking at future power or height restrictions. A blanket restriction can't always be followed. If all areas had a flat terrain then a given height restriction is feasible. More work needed to be done on both these issues to make any restrictions equitable. Antennas with down tilt and possibly farther co-channel separation allowed in rural and hilly areas are some considerations. Urban police and fire service bases should also be allowed a greater ERP with defined limits on heights. All licensed heights for all bands should be listed as "above average terrain" so the real picture can be considered.

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Low Power Operations - Agree

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Out of Band Chirp - This should be even more stringent than proposed.

Trunking - All large users (such as ourselves) of multiple channels (over 5) below 470 MHz should be required to have trunking systems on existing frequencies phased into use over a period. Channel loading in public safety should be 50 units per trunked channel below 470 MHz.

All Other Areas - Any other item not mentioned indicates my response is neutral.

ARS:jj

*Alan R. Schwagler*